



#5

A-570B.ST25.txt
SEQUENCE LISTING<110> BOYLE, WILLIAM
HSU, HAILING

<120> RECEPTOR FROM TNF FAMILY

<130> A-570B

<140> 09/779,050

<141> 2001-02-12

<150> 60/181,800

<151> 2000-02-11

<160> 52

<170> PatentIn version 3.0

<210> 1

<211> 1173

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (143)..(997)

<400> 1

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acaaacacag ataacaggaa atgatccatt ccctgtgggc acttattcta aaggccccaa 120

ccttcaaagt tcaagtagtg at atg gat gac tcc aca gaa agg gag cag tca 172
Met Asp Asp Ser Thr Glu Arg Glu Gln Ser
1 5 10cgc ctt act tct tgc ctt aag aaa aga gaa gaa atg aaa ctg aag gag 220
Arg Leu Thr Ser Cys Leu Lys Lys Arg Glu Glu Met Lys Leu Lys Glu
15 20 25tgt gtt tcc atc ctc cca cgg aag gaa agc ccc tct gtc cga tcc tcc 268
Cys Val Ser Ile Leu Pro Arg Lys Glu Ser Pro Ser Val Arg Ser Ser
30 35 40aaa gac gga aag ctg ctg gct gca acc ttg ctg ctg gca ctg ctg tct 316
Lys Asp Gly Lys Leu Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser
45 50 55tgc tgc ctc acg gtg gtg tct ttc tac cag gtg gcc gcc ctg caa ggg 364
Cys Cys Leu Thr Val Val Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly
60 65 70gac ctg gcc agc ctc cgg gca gag ctg cag gcc cac cac gcg gag aag 412
Asp Leu Ala Ser Leu Arg Ala Glu Leu Gln Gly His His Ala Glu Lys
75 80 85 90ctg cca gca gga gca gga gcc ccc aag gcc gcc ctg gag gaa gct cca 460
Leu Pro Ala Gly Ala Gly Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro
95 100 105gct gtc acc gcg gga ctg aaa atc ttt gaa cca cca gct cca gga gaa 508
Ala Val Thr Ala Gly Leu Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu
110 115 120ggc aac tcc agt cag aac agc aga aat aag cgt gcc gtt cag ggt cca 556
Gly Asn Ser Ser Gln Asn Ser Arg Asn Lys Arg Ala Val Gln Gly Pro
125 130 135

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gaa gaa aca gtc act caa gac tgc ttg caa ctg att gca gac agt gaa 604
 Glu Glu Thr Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu
 140 145 150
 aca cca act ata caa aaa gga tct tac aca ttt gtt cca tgg ctt ctc 652
 Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu
 155 160 165 170
 agc ttt aaa agg gga agt gcc cta gaa gaa aaa gag aat aaa ata ttg 700
 Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu
 175 180 185
 gtc aaa gaa act ggt tac ttt ttt ata tat ggt cag gtt tta tat act 748
 Val Lys Glu Thr Gly Tyr Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr
 190 195 200
 gat aag acc tac gcc atg gga cat cta att cag agg aag aag gtc cat 796
 Asp Lys Thr Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His
 205 210 215
 gtc ttt ggg gat gaa ttg agt ctg gtg act ttg ttt cga tgt att caa 844
 Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln
 220 225 230
 aat atg cct gaa aca cta ccc aat aat tcc tgc tat tca gct ggc att 892
 Asn Met Pro Glu Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile
 235 240 245 250
 gca aaa ctg gaa gaa gga gat gaa ctc caa ctt gca ata cca aga gaa 940
 Ala Lys Leu Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu
 255 260 265
 aat gca caa ata tca ctg gat gga gat gtc aca ttt ttt ggt gca ttg 988
 Asn Ala Gln Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu
 270 275 280
 aaa ctg ctg tgacctactt acaccatgtc tctagctatt ttcctccctt 1037
 Lys Leu Leu
 285
 tctctgtacc tctaagaaga aagaatctaa ctgaaaatc caaaaaaaaa aaaaaaaaaa 1097
 aaaaaaaaaagt agttaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1157
 aaaaactcgg agggggg 1173

<210> 2
 <211> 285
 <212> PRT
 <213> Homo sapiens

<400> 2

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Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro
20 25 30

Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
35 40 45

Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val

50

55

60

Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
65 70 75 80

Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly
85 90 95

Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu
100 105 110

Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn
115 120 125

Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln
130 135 140

Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys
145 150 155 160

Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser
165 170 175

Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr
180 185 190

Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met
195 200 205

Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu
210 215 220

Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu
225 230 235 240

Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly
245 250 255

Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu
260 265 270

Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
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<210> 3
<211> 1139
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (52) .. (978)

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Glu Ser Ala Lys Thr Leu Pro Pro Pro Cys Leu Cys Phe Cys Ser Glu
5 10 15

aaa gga gaa gat atg aaa gtg gga tat gat ccc atc act ccg cag aag 153
Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro Gln Lys
20 25 30

gag gag ggt gcc tgg ttt ggg atc tgc agg gat gga agg ctg ctg gct 201
Glu Glu Gly Ala Trp Phe Gly Ile Cys Arg Asp Gly Arg Leu Leu Ala
35 40 45 50

gct acc ctc ctg ctg gcc ctg ttg tcc agc agt ttc aca gcg atg tcc 249
Ala Thr Leu Leu Leu Ala Leu Leu Ser Ser Ser Phe Thr Ala Met Ser
55 60 65

ttg tac cag ttg gct gcc ttg caa gca gac ctg atg aac ctg cgc atg 297
Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu Arg Met
70 75 80

gag ctg cag agc tac cga ggt tca gca aca cca gcc gcc gcg ggt gct 345
Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala Gly Ala
85 90 95

cca gag ttg acc gct gga gtc aaa ctc ctg aca ccg gca gct cct cga 393
Pro Glu Leu Thr Ala Gly Val Lys Leu Leu Thr Pro Ala Ala Pro Arg
100 105 110

ccc cac aac tcc agc cgc ggc cac agc aac aga cgc gct ttc cag gga 441
Pro His Asn Ser Ser Arg Gly His Arg Asn Arg Arg Ala Phe Gln Gly
115 120 125 130

cca gag gaa aca gaa caa gat gta gac ctc tca gct cct cct gca cca 489
Pro Glu Glu Thr Glu Gln Asp Val Asp Leu Ser Ala Pro Pro Ala Pro
135 140 145

tgc ctg cct gga tgc cgc cat tct caa cat gat gat aat gga atg aac 537
Cys Leu Pro Gly Cys Arg His Ser Gln His Asp Asp Asn Gly Met Asn
150 155 160

ctc aga aac atc att caa gac tgt ctg cag ctg att gca gac agc gac 585
Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Asp
165 170 175

acg ccg act ata cga aaa gga act tac aca ttt gtt cca tgg ctt ctc 633
Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp Leu Leu
180 185 190

agc ttt aaa aga gga aat gcc ttg gag gag aaa gag aac aaa ata gtg 681
Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys Ile Val
195 200 205 210

gtg agg caa aca ggc tat ttc ttc atc tac agc cag gtt cta tac acg 729
Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu Tyr Thr
215 220 225

gac ccc atc ttt gct atg ggt cat gtc atc cag agg aag aaa gta cac 777
Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys Val His
230 235 240

gtc ttt ggg gac gag ctg agc ctg gtg acc ctg ttc cga tgt att cag 825
Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln
245 250 255

A-570B.ST25.txt

aat atg ccc aaa aca ctg ccc aac aat tcc tgc tac ttg gct ggc atc 873
 Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Leu Ala Gly Ile
 260 265 270

gcg agg ctg gaa gaa gga gat gag att cag ctt gca att cct cgg gag 921
 Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro Arg Glu
 275 280 285 290

aat gca cag att tca cgc aac gga gac gac acc ttc ttt ggt gcc cta 969
 Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly Ala Leu
 295 300 305

aaa ctg ctg taactcactt gctggagtgc gtgatcccct tccctcgtct 1018
 Lys Leu Leu

tctctgtacc tccgagggag aaacagacga ctggaaaaat aaaagatggg gaaagccgtc 1078
 agcgaaagtt ttctcgtgac ccgttgaatc tgatccaaac caggaaatat aacagacagc 1138
 c 1139

<210> 4
 <211> 309
 <212> PRT
 <213> Mus musculus

<400> 4

Met Asp Glu Ser Ala Lys Thr Leu Pro Pro Pro Cys Leu Cys Phe Cys
 1 5 10 15

Ser Glu Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro
 20 25 30

Gln Lys Glu Glu Gly Ala Trp Phe Gly Ile Cys Arg Asp Gly Arg Leu
 35 40 45

Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Ser Ser Phe Thr Ala
 50 55 60

Met Ser Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu
 65 70 75 80

Arg Met Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala
 85 90 95

Gly Ala Pro Glu Leu Thr Ala Gly Val Lys Leu Leu Thr Pro Ala Ala
 100 105 110

Pro Arg Pro His Asn Ser Ser Arg Gly His Arg Asn Arg Arg Ala Phe
 115 120 125

Gln Gly Pro Glu Glu Thr Glu Gln Asp Val Asp Leu Ser Ala Pro Pro
 130 135 140

Ala Pro Cys Leu Pro Gly Cys Arg His Ser Gln His Asp Asp Asn Gly

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145                150                155                160
Met Asn Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp
                165                170                175
Ser Asp Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp
                180                185                190
Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys
                195                200                205
Ile Val Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu
                210                215                220
Tyr Thr Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys
                225                230                235                240
Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys
                245                250                255
Ile Gln Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Leu Ala
                260                265                270
Gly Ile Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro
                275                280                285
Arg Glu Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly
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Ala Leu Lys Leu Leu
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<210> 5
<211> 278
<212> PRT
<213> Homo sapiens

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57, 60, 78, 79, 86, 87, 88, 89, 90, 91, 92, 95, 100, 101, 105, 107, 108, 109, 111
, 114, 115, 116, 120, 121, 122, 125, 128, 135, 136, 147, 152, 155, 179, 181, 182,
190, 197, 198, 199, 204, 231, 245, 252, 265, 266, )...(269)
<223> Xaa is absent or any amino acid residue

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<400> 5

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Met Asp Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Cys
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Xaa Xaa Lys Xaa Glu Xaa Met Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20                25                30
Xaa Xaa Xaa Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Gly Xaa Leu
35                40                45

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Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Xaa Xaa Xaa Thr Xaa
50 55 60

Xaa Ser Xaa Tyr Gln Xaa Ala Ala Leu Gln Xaa Asp Leu Xaa Xaa Leu
65 70 75 80

Arg Xaa Glu Leu Gln Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Ala Xaa Ala
85 90 95

Gly Ala Pro Xaa Xaa Thr Ala Gly Xaa Lys Xaa Xaa Xaa Pro Xaa Ala
100 105 110

Pro Xaa Xaa Xaa Asn Ser Ser Xaa Xaa Xaa Arg Asn Xaa Arg Ala Xaa
115 120 125

Gln Gly Pro Glu Glu Thr Xaa Xaa Gln Asp Cys Leu Gln Leu Ile Ala
130 135 140

Asp Ser Xaa Thr Pro Thr Ile Xaa Lys Gly Xaa Tyr Thr Phe Val Pro
145 150 155 160

Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn
165 170 175

Lys Ile Xaa Val Xaa Xaa Thr Gly Tyr Phe Phe Ile Tyr Xaa Gln Val
180 185 190

Leu Tyr Thr Asp Xaa Xaa Xaa Ala Met Gly His Xaa Ile Gln Arg Lys
195 200 205

Lys Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg
210 215 220

Cys Ile Gln Asn Met Pro Xaa Thr Leu Pro Asn Asn Ser Cys Tyr Ser
225 230 235 240

Ala Gly Ile Ala Xaa Leu Glu Glu Gly Asp Glu Xaa Gln Leu Ala Ile
245 250 255

Pro Arg Glu Asn Ala Gln Ile Ser Xaa Xaa Gly Asp Xaa Thr Phe Phe
260 265 270

Gly Ala Leu Lys Leu Leu
275

<210> 6

<211> 102

<212> PRT

<213> Consensus

<220>

<221> MUTAGEN

<222> (1, 8, 10, 12, 15, 18, 21, 23, 25, 29, 39, 41, 44, 47, 49, 51, 53, 55, 57,
60, 64, 66, 68, 70, 72, 79, 81, 84, 90, 92)..(94)

<223> Xaa is absent or any amino acid residue

<400> 6

Xaa Pro Ala Ala His Leu Thr Xaa Pro Xaa Leu Xaa Trp Ala Xaa Leu
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Ser Xaa Gly Val Xaa Leu Xaa Asn Xaa Leu Val Val Xaa Gly Leu Tyr
20 25 30

Phe Ile Tyr Ser Gln Val Xaa Phe Xaa Gly Gln Xaa Cys Pro Xaa Val
35 40 45

A-570B.ST25.txt

Xaa Leu Xaa His Xaa Val Xaa Val Xaa Tyr Pro Xaa Leu Leu Ser Xaa
 50 55 60
 Thr Xaa Cys Xaa Trp Xaa Ser Xaa Tyr Leu Gly Gly Val Phe Xaa Leu
 65 70 75 80
 Xaa Gly Asp Xaa Leu Tyr Val Asn Val Xaa Ser Xaa Phe Xaa Thr Phe
 85 90 95
 Phe Gly Leu Phe Lys Leu
 100

<210> 7
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 7

Glu Lys Lys Glu Leu Arg Lys Val Ala His Leu Thr Gly Lys Ser Asn
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 Ser Arg Ser Met Pro Leu Glu Trp Glu Asp Thr Tyr Gly Ile Val Leu
 20 25 30
 Leu Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Leu Asn Glu Thr
 35 40 45
 Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
 50 55 60
 Asn Asn Leu Pro Leu Ser His Lys Val Tyr Met Arg Asn Ser Lys Tyr
 65 70 75 80
 Pro Gln Asp Leu Val Met Met Glu Gly Lys Met Met Ser Tyr Cys Thr
 85 90 95
 Thr Gly Gln Met Trp Ala Arg Ser Ser Tyr Leu Gly Ala Val Phe Asn
 100 105 110
 Leu Thr Ser Ala Asp His Leu Tyr Val Asn Val Ser Glu Leu Ser Leu
 115 120 125
 Val Asn Phe Glu Glu Ser Gln Thr Phe Phe Gly Leu Tyr Lys Leu
 130 135 140

<210> 8
 <211> 143
 <212> PRT
 <213> Mus musculus

<400> 8

Glu Lys Lys Glu Pro Arg Ser Val Ala His Leu Thr Gly Asn Pro His
 1 5 10 15
 Ser Arg Ser Ile Pro Leu Glu Trp Glu Asp Thr Tyr Gly Thr Ala Leu
 20 25 30
 Ile Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Ile Asn Glu Thr
 35 40 45
 Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
 50 55 60
 Asn Asn Gln Pro Ile Asn His Lys Val Tyr Met Arg Asn Ser Lys Tyr
 65 70 75 80

A-570B.ST25.txt

Pro Glu Asp Leu Val Leu Met Glu Glu Lys Arg Leu Asn Tyr Cys Thr
85 90 95
Thr Gly Gln Ile Trp Ala His Ser Ser Tyr Leu Gly Ala Val Phe Asn
100 105 110
Leu Thr Ser Ala Asp His Leu Val Tyr Asn Ile Ser Gln Leu Ser Leu
115 120 125
Ile Asn Phe Glu Glu Ser Lys Thr Phe Phe Gly Leu Tyr Lys Leu
130 135 140

<210> 9
<211> 143
<212> PRT
<213> Rattus rattus

<400> 9

Glu Thr Lys Lys Pro Arg Ser Val Ala His Leu Thr Gly Asn Pro Arg
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Ser Arg Ser Ile Pro Leu Glu Trp Glu Asp Thr Tyr Gly Thr Ala Leu
20 25 30
Ile Ser Gly Val Lys Tyr Lys Lys Gly Gly Leu Val Ile Asn Glu Ala
35 40 45
Gly Leu Tyr Phe Val Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys
50 55 60
Asn Ser Gln Pro Leu Ser His Lys Val Tyr Met Arg Asn Phe Lys Tyr
65 70 75 80
Pro Gly Asp Leu Val Leu Met Glu Glu Lys Lys Leu Asn Tyr Cys Thr
85 90 95
Thr Gly Gln Ile Trp Ala His Ser Ser Tyr Leu Gly Ala Val Phe Asn
100 105 110
Leu Thr Val Ala Asp His Leu Tyr Val Asn Ile Ser Gln Leu Ser Leu
115 120 125
Ile Asn Phe Glu Glu Ser Lys Thr Phe Phe Gly Leu Tyr Lys Leu
130 135 140

<210> 10
<211> 146
<212> PRT
<213> Homo sapiens

<400> 10

Gly Asp Gln Asn Pro Gln Ile Ala Ala Arg Val Ile Ser Glu Ala Ser
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Ser Lys Thr Thr Ser Val Leu Gln Trp Ala Glu Lys Gly Tyr Tyr Thr
20 25 30
Met Ser Asn Asn Leu Val Thr Leu Glu Asn Gly Lys Gln Leu Thr Val
35 40 45
Lys Arg Gln Gly Leu Tyr Tyr Ile Tyr Ala Gln Val Thr Phe Cys Ser
50 55 60
Asn Arg Glu Ala Ser Ser Gln Ala Pro Phe Ile Ala Ser Leu Cys Leu
65 70 75 80

A-570B.ST25.txt

Lys Ser Pro Gly Arg Phe Glu Arg Ile Leu Leu Arg Ala Ala Asn Thr
85 90 95
His Ser Ser Ala Lys Pro Cys Gly Gln Gln Ser Ile His Leu Gly Gly
100 105 110
Val Phe Glu Leu Gln Pro Gly Ala Ser Val Phe Val Asn Val Thr Asp
115 120 125
Pro Ser Gln Val Ser His Gly Thr Gly Phe Thr Ser Phe Gly Leu Leu
130 135 140

Lys Leu
145

<210> 11
<211> 146
<212> PRT
<213> Mus musculus

<400> 11

Gly Asp Glu Asp Pro Gln Ile Ala Ala His Val Val Ser Glu Ala Asn
1 5 10 15
Ser Asn Ala Ala Ser Val Leu Gln Trp Ala Lys Lys Gly Tyr Tyr Thr
20 25 30
Met Lys Ser Asn Leu Val Met Leu Glu Asn Gly Lys Gln Leu Thr Val
35 40 45
Lys Arg Glu Gly Leu Tyr Tyr Val Tyr Thr Gln Val Thr Phe Gln Ser
50 55 60
Asn Arg Glu Pro Ser Ser Gln Arg Pro Phe Ile Val Gly Leu Trp Leu
65 70 75 80
Lys Pro Ser Ile Gly Ser Glu Arg Ile Leu Leu Lys Ala Ala Asn Thr
85 90 95
His Ser Ser Ser Gln Leu Cys Glu Gln Gln Ser Val His Leu Gly Gly
100 105 110
Val Phe Glu Leu Gln Ala Gly Ala Ser Val Phe Val Asn Val Thr Glu
115 120 125
Ala Ser Gln Val Ile His Arg Val Gly Phe Ser Ser Phe Gly Leu Leu
130 135 140

Lys Leu
145

<210> 12
<211> 144
<212> PRT
<213> Homo sapiens

<400> 12

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20 25 30
Arg Gly Ser Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu
35 40 45

A-570B.ST25.txt

Thr Gly Tyr Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr
50 55 60
Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly
65 70 75 80
Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro
85 90 95
Glu Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu
100 105 110
Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln
115 120 125
Ile Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
130 135 140

<210> 13
<211> 147
<212> PRT
<213> Mus musculus

<400> 13

Leu Arg Asn Ile Ile Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Asp
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Thr Pro Thr Ile Arg Lys Gly Thr Tyr Thr Phe Val Pro Trp Leu Leu
20 25 30
Ser Phe Lys Arg Gly Asn Ala Leu Glu Glu Lys Glu Asn Lys Ile Val
35 40 45
Val Arg Gln Thr Gly Tyr Phe Phe Ile Tyr Ser Gln Val Leu Tyr Thr
50 55 60
Asp Pro Ile Phe Ala Met Gly His Val Ile Gln Arg Lys Lys Val His
65 70 75 80
Val Phe Gly Asp Glu Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln
85 90 95
Asn Met Pro Lys Thr Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile
100 105 110
Ala Arg Leu Glu Glu Gly Asp Glu Ile Gln Leu Ala Ile Pro Arg Glu
115 120 125
Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr Phe Phe Gly Ala Leu
130 135 140

Lys Leu Leu
145

<210> 14
<211> 160
<212> PRT
<213> Mus musculus

<400> 14

Gly Lys Pro Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Ala
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Ser Ile Pro Ser Gly Ser His Lys Val Thr Leu Ser Ser Trp Tyr His
20 25 30

A-570B.ST25.txt

Asp Arg Gly Trp Ala Lys Ile Ser Asn Met Thr Leu Ser Asn Gly Lys
35 40 45
Leu Arg Val Asn Gln Asp Gly Phe Tyr Tyr Leu Tyr Ala Asn Ile Cys
50 55 60
Phe Arg His His Glu Thr Ser Gly Ser Val Pro Thr Asp Tyr Leu Gln
65 70 75 80
Leu Met Val Tyr Val Val Lys Thr Ser Ile Lys Ile Pro Ser Ser His
85 90 95
Asn Leu Met Lys Gly Gly Ser Thr Lys Asn Trp Ser Gly Asn Ser Glu
100 105 110
Phe His Phe Tyr Ser Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ala
115 120 125
Gly Glu Glu Ile Ser Ile Gln Val Ser Asn Pro Ser Leu Leu Asp Pro
130 135 140
Asp Gln Asp Ala Thr Tyr Phe Gly Ala Phe Lys Val Gln Asp Ile Asp
145 150 155 160

<210> 15
<211> 160
<212> PRT
<213> Homo sapiens

<400> 15

Ser Lys Leu Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Thr
1 5 10 15
Asp Ile Pro Ser Gly Ser His Lys Val Ser Leu Ser Ser Trp Tyr His
20 25 30
Asp Arg Gly Trp Ala Lys Ile Ser Asn Met Thr Phe Ser Asn Gly Lys
35 40 45
Leu Ile Val Asn Gln Asp Gly Phe Tyr Tyr Leu Tyr Ala Asn Ile Cys
50 55 60
Phe Arg His His Glu Thr Ser Gly Asp Leu Ala Thr Glu Tyr Leu Gln
65 70 75 80
Leu Met Val Tyr Val Thr Lys Thr Ser Ile Lys Ile Pro Ser Ser His
85 90 95
Thr Leu Met Lys Gly Gly Ser Thr Lys Tyr Trp Ser Gly Asn Ser Glu
100 105 110
Phe His Phe Tyr Ser Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ser
115 120 125
Gly Glu Glu Ile Ser Ile Glu Val Ser Asn Pro Ser Leu Leu Asp Pro
130 135 140
Asp Gln Asp Ala Thr Tyr Phe Gly Ala Phe Lys Val Arg Asp Ile Asp
145 150 155 160

<210> 16
<211> 166
<212> PRT
<213> Homo sapiens

<400> 16

A-570B.ST25.txt

Glu Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly Thr Arg Gly
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Arg Ser Asn Thr Leu Ser Ser Pro Asn Ser Lys Asn Glu Lys Ala Leu
20 25 30
Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly His Ser Phe
35 40 45
Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His Glu Lys
50 55 60
Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Glu
65 70 75 80
Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln Tyr Ile Tyr
85 90 95
Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys Ser Ala Arg
100 105 110
Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr Ser Ile Tyr
115 120 125
Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile Phe Val Ser
130 135 140
Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala Ser Phe Phe
145 150 155 160
Gly Ala Phe Leu Val Gly
165

<210> 17
<211> 172
<212> PRT
<213> Mus musculus

<400> 17

Gly Gly Arg Pro Gln Lys Val Ala Ala His Ile Thr Gly Ile Thr Arg
1 5 10 15
Arg Ser Asn Ser Ala Leu Ile Pro Ile Ser Lys Asp Gly Lys Thr Leu
20 25 30
Gly Gln Lys Ile Glu Ser Trp Glu Ser Ser Arg Lys Gly His Ser Phe
35 40 45
Leu Asn His Val Leu Phe Arg Asn Gly Glu Leu Val Ile Glu Gln Glu
50 55 60
Gly Leu Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Ala
65 70 75 80
Glu Asp Ala Ser Lys Met Val Ser Lys Asp Lys Val Arg Thr Lys Gln
85 90 95
Leu Val Gln Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Val
100 105 110
Leu Met Lys Ser Ala Arg Asn Ser Cys Trp Ser Arg Asp Ala Glu Tyr
115 120 125
Gly Leu Tyr Ser Ile Tyr Gln Gly Gly Leu Phe Glu Leu Lys Lys Asn
130 135 140

A-570B.ST25.txt

Asp Arg Ile Phe Val Ser Val Thr Asn Glu His Leu Met Asp Leu Asp
145 150 155 160

Gln Glu Ala Ser Phe Phe Gly Ala Phe Leu Ile Asn
165 170

<210> 18
<211> 143
<212> PRT
<213> Homo sapiens

<400> 18

Arg Ala Pro Phe Lys Lys Ser Trp Ala Tyr Leu Gln Val Ala Lys His
1 5 10 15

Leu Asn Lys Thr Lys Leu Ser Trp Asn Lys Asp Gly Ile Leu His Gly
20 25 30

Val Arg Tyr Gln Asp Gly Asn Leu Val Ile Gln Phe Pro Gly Leu Tyr
35 40 45

Phe Ile Ile Cys Gln Leu Gln Phe Leu Val Gln Cys Pro Asn Asn Ser
50 55 60

Val Asp Leu Lys Leu Glu Leu Leu Ile Asn Lys His Ile Lys Lys Gln
65 70 75 80

Ala Leu Val Thr Val Cys Glu Ser Gly Met Gln Thr Lys His Val Tyr
85 90 95

Gln Asn Leu Ser Gln Phe Leu Leu Asp Tyr Leu Gln Val Asn Thr Thr
100 105 110

Ile Ser Val Asn Val Asp Thr Phe Gln Tyr Ile Asp Thr Ser Thr Phe
115 120 125

Pro Leu Glu Asn Val Leu Ser Ile Phe Leu Tyr Ser Asn Ser Asp
130 135 140

<210> 19
<211> 143
<212> PRT
<213> Mus musculus

<400> 19

Ser Thr Pro Ser Lys Lys Ser Trp Ala Tyr Leu Gln Val Ser Lys His
1 5 10 15

Leu Asn Asn Thr Lys Leu Ser Trp Asn Glu Asp Gly Thr Ile His Gly
20 25 30

Leu Ile Tyr Gln Asp Gly Asn Leu Ile Val Gln Phe Pro Gly Leu Tyr
35 40 45

Phe Ile Val Cys Gln Leu Gln Phe Leu Val Gln Cys Ser Asn His Ser
50 55 60

Val Asp Leu Thr Leu Glu Leu Leu Ile Asn Ser Lys Ile Lys Lys Gln
65 70 75 80

Thr Leu Val Thr Val Cys Glu Ser Gly Val Gln Ser Lys Asn Ile Tyr
85 90 95

Gln Asn Leu Ser Gln Phe Leu Leu His Tyr Leu Gln Val Asn Ser Thr
100 105 110

A-570B.ST25.txt

Ile Ser Val Arg Val Asp Asn Phe Gln Tyr Val Asp Thr Asn Thr Phe
115 120 125

Pro Leu Asp Asn Val Leu Ser Val Phe Leu Tyr Ser Ser Ser Asp
130 135 140

<210> 20
<211> 163
<212> PRT
<213> Homo sapiens

<400> 20

Asp Leu Ser Pro Gly Leu Pro Ala Ala His Leu Ile Gly Ala Pro Leu
1 5 10 15

Lys Gly Gln Gly Leu Gly Trp Glu Thr Thr Lys Glu Gln Ala Phe Leu
20 25 30

Thr Ser Gly Thr Gln Phe Ser Asp Ala Glu Gly Leu Ala Leu Pro Gln
35 40 45

Asp Gly Leu Tyr Tyr Leu Tyr Cys Leu Val Gly Tyr Arg Gly Arg Ala
50 55 60

Pro Pro Gly Gly Gly Asp Pro Gln Gly Arg Ser Val Thr Leu Arg Ser
65 70 75 80

Ser Leu Tyr Arg Ala Gly Gly Ala Tyr Gly Pro Gly Thr Pro Glu Leu
85 90 95

Leu Leu Glu Gly Ala Glu Thr Val Thr Pro Val Leu Asp Pro Ala Arg
100 105 110

Arg Gln Gly Tyr Gly Pro Leu Trp Tyr Thr Ser Val Gly Phe Gly Gly
115 120 125

Leu Val Gln Leu Arg Arg Gly Glu Arg Val Tyr Val Asn Ile Ser His
130 135 140

Pro Asp Met Val Asp Phe Ala Arg Gly Lys Thr Phe Phe Gly Ala Val
145 150 155 160

Met Val Gly

<210> 21
<211> 159
<212> PRT
<213> Mus musculus

<400> 21

Asp Leu Asn Pro Glu Leu Pro Ala Ala His Leu Ile Gly Ala Trp Met
1 5 10 15

Ser Gly Gln Gly Leu Ser Trp Glu Ala Ser Gln Glu Glu Ala Phe Leu
20 25 30

Arg Ser Gly Ala Gln Phe Ser Pro Thr His Gly Leu Ala Leu Pro Gln
35 40 45

Asp Gly Val Tyr Tyr Leu Tyr Cys His Val Gly Tyr Arg Gly Arg Thr
50 55 60

Pro Pro Ala Gly Arg Ser Arg Ala Arg Ser Leu Thr Leu Arg Ser Ala
65 70 75 80

A-570B.ST25.txt

Leu Tyr Arg Ala Gly Gly Ala Tyr Gly Arg Gly Ser Pro Glu Leu Leu
 85 90 95
 Leu Glu Gly Ala Glu Thr Val Thr Pro Val Val Asp Pro Ile Gly Tyr
 100 105 110
 Gly Ser Leu Trp Tyr Thr Ser Val Gly Phe Gly Gly Leu Ala Gln Leu
 115 120 125
 Arg Ser Gly Glu Arg Val Tyr Val Asn Ile Ser His Pro Asp Met Val
 130 135 140
 Asp Tyr Arg Arg Gly Lys Thr Phe Phe Gly Ala Val Met Val Gly
 145 150 155

<210> 22
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 22

Ala His Ser Thr Leu Lys Pro Ala Ala His Leu Ile Gly Asp Pro Ser
 1 5 10 15
 Lys Gln Asn Ser Leu Leu Trp Arg Ala Asn Thr Asp Arg Ala Phe Leu
 20 25 30
 Gln Asp Gly Phe Ser Leu Ser Asn Asn Ser Leu Leu Val Pro Thr Ser
 35 40 45
 Gly Ile Tyr Phe Val Tyr Ser Gln Val Val Phe Ser Gly Lys Ala Tyr
 50 55 60
 Ser Pro Lys Ala Thr Ser Ser Pro Leu Tyr Leu Ala His Glu Val Gln
 65 70 75 80
 Leu Phe Ser Ser Gln Tyr Pro Phe His Val Pro Leu Leu Ser Ser Gln
 85 90 95
 Lys Met Val Tyr Pro Gly Leu Gln Glu Pro Trp Leu His Ser Met Tyr
 100 105 110
 His Gly Ala Ala Phe Gln Leu Thr Gln Gly Asp Gln Leu Ser Thr His
 115 120 125
 Thr Asp Gly Ile Pro His Leu Val Leu Ser Pro Ser Thr Val Phe Phe
 130 135 140
 Gly Ala Phe Ala Leu
 145

<210> 23
 <211> 149
 <212> PRT
 <213> Mus musculus

<400> 23

Thr His Gly Ile Leu Lys Pro Ala Ala His Leu Val Gly Tyr Pro Ser
 1 5 10 15
 Lys Gln Asn Ser Leu Leu Trp Arg Ala Ser Thr Asp Arg Ala Phe Leu
 20 25 30
 Arg His Gly Phe Ser Leu Ser Asn Asn Ser Leu Leu Ile Pro Thr Ser
 35 40 45

A-570B.ST25.txt

Gly Leu Tyr Phe Val Tyr Ser Gln Val Val Phe Ser Gly Glu Ser Cys
 50 55 60
 Ser Pro Arg Ala Ile Pro Thr Pro Ile Tyr Leu Ala His Glu Val Gln
 65 70 75 80
 Leu Phe Ser Ser Gln Tyr Pro Phe His Val Pro Leu Leu Ser Ala Gln
 85 90 95
 Lys Ser Val Tyr Pro Gly Leu Gln Gly Pro Trp Val Arg Ser Met Tyr
 100 105 110
 Gln Gly Ala Val Phe Leu Leu Ser Lys Gly Asp Gln Leu Ser Thr His
 115 120 125
 Thr Asp Gly Ile Ser His Leu His Phe Ser Pro Ser Ser Val Phe Phe
 130 135 140
 Gly Ala Phe Ala Leu
 145

<210> 24
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 24

Arg Thr Pro Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro Gln
 1 5 10 15
 Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu Leu
 20 25 30
 Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu Val Val Pro Ser Glu
 35 40 45
 Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys
 50 55 60
 Pro Ser Thr His Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala Val
 65 70 75 80
 Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala Ile Lys Ser Pro Cys
 85 90 95
 Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu Pro
 100 105 110
 Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Arg Leu Ser
 115 120 125
 Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe Ala Glu Ser Gly Gln
 130 135 140
 Val Tyr Phe Gly Ile Ile Ala Leu
 145 150

<210> 25
 <211> 29
 <212> PRT
 <213> Artificial

<220>
 <223> AGP-3 RELATED PROTEIN

<220>
 <221> MUTAGEN

<222> (11, 16)..(19)

<223> Xaa is absent or any amino acid residue

<400> 25

Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Xaa Thr Pro Thr Ile Xaa
 1 5 10 15

Lys Gly Xaa Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe
 20 25

<210> 26

<211> 25

<212> PRT

<213> Artificial

<220>

<223> CONSENSUS

<220>

<221> MUTAGEN

<222> (5)..(5)

<223> Xaa is absent or any amino acid residue

<400> 26

Ala Met Gly His Xaa Ile Gln Arg Lys Lys Val His Val Phe Gly Asp
 1 5 10 15

Glu Leu Ser Leu Val Thr Leu Phe Arg
 20 25

<210> 27

<211> 142

<212> PRT

<213> Artificial

<220>

<223> CONSENSUS

<220>

<221> MUTAGEN

<222> (43, 45, 46, 54, 61-63, 68, 95, 109, 116, 129, 130)..(133)

<223> Xaa is absent or any amino acid residue

<400> 27

Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Xaa Thr Pro Thr Ile Xaa
 1 5 10 15

Lys Gly Xaa Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly
 20 25 30

Xaa Ala Leu Glu Glu Lys Glu Asn Lys Ile Xaa Val Xaa Xaa Thr Gly
 35 40 45

Tyr Phe Phe Ile Tyr Xaa Gln Val Leu Tyr Thr Asp Xaa Xaa Xaa Ala
 50 55 60

Met Gly His Xaa Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu
 65 70 75 80

Leu Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Xaa Thr
 85 90 95

A-570B.ST25.txt

Leu Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Xaa Leu Glu Glu
100 105 110

Gly Asp Glu Xaa Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser
115 120 125

Xaa Xaa Gly Asp Xaa Thr Phe Phe Gly Ala Leu Lys Leu Leu
130 135 140

<210> 28

<211> 20

<212> DNA

<213> Mus musculus

<400> 28

aattaaccct cactaaaggg 20

<210> 29

<211> 33

<212> DNA

<213> Mus musculus

<400> 29

tctccctcga gatcacgcac tccagcaagt gag 33

<210> 30

<211> 24

<212> DNA

<213> Mus musculus

<400> 30

aacaggctat ttcttcatct acag 24

<210> 31

<211> 25

<212> DNA

<213> Mus musculus

<400> 31

ctcatcaatg tatcttatca tgtct 25

<210> 32

<211> 25

<212> DNA

<213> Mus musculus

<400> 32

ctcatcaatg tatcttatca tgtct 25

<210> 33

<211> 20

<212> DNA

<213> Mus musculus

<400> 33

agccgcggcc acaggaacag 20

<210> 34

<211> 19

<212> DNA

<213> Mus musculus

<400> 34
tggatgacat gacccatag

19

<210> 35
<211> 7
<212> PRT
<213> Homo sapiens

<400> 35

Met Asn Ser Arg Asn Lys Arg
1 5

<210> 36
<211> 60
<212> DNA
<213> Homo sapiens

<400> 36
atttgattct agaaggagga ataacatatg aacagccgta ataagcgtgc cgttcagggt 60

<210> 37
<211> 45
<212> DNA
<213> Homo sapiens

<400> 37
ccgcggatcc tcgagttaca gcagtttcaa tgcacaaaa aatgt 45

<210> 38
<211> 17
<212> PRT
<213> Homo sapiens

<400> 38

Met Asp Tyr Lys Asp Asp Asp Asp Lys Lys Leu Asn Ser Arg Asn Lys
1 5 10 15

Arg

<210> 39
<211> 48
<212> DNA
<213> Homo sapiens

<400> 39
gacgatgaca agaagcttaa cagccgtaat aagcgtgccg ttcagggt 48

<210> 40
<211> 151
<212> PRT
<213> Mus musculus

<400> 40

Gln Asn Ser Ser Asp Lys Pro Val Ala His Val Val Ala Asn His Gln
1 5 10 15

Val Glu Glu Gln Leu Glu Trp Leu Ser Gln Arg Ala Asn Ala Leu Leu
20 25 30

Ala Asn Gly Met Asp Leu Lys Asp Asn Gln Leu Val Val Pro Ala Asp
Page 20

35 40 45
 Gly Leu Tyr Leu Val Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys
 50 55 60
 Pro Asp Tyr Val Leu Leu Thr His Thr Val Ser Arg Phe Ala Ile Ser
 65 70 75 80
 Tyr Gln Glu Lys Val Asn Leu Leu Ser Ala Val Lys Ser Pro Cys Pro
 85 90 95
 Lys Asp Thr Pro Glu Gly Ala Glu Leu Lys Pro Trp Tyr Glu Pro Ile
 100 105 110
 Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Gln Leu Ser Ala
 115 120 125
 Glu Val Asn Leu Pro Lys Tyr Leu Asp Phe Ala Glu Ser Gly Gln Val
 130 135 140
 Tyr Phe Gly Val Ile Ala Leu
 145 150
 <210> 41
 <211> 1340
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> CDS
 <222> (28)..(906)
 <400> 41
 gtcgacccac gcgtccgata ctgagta atg agt ggc ctg ggc cgg agc agg cga 54
 Met Ser Gly Leu Gly Arg Ser Arg Arg
 1 5
 ggt ggc cgg agc cgt gtg gac cag gag gag cgc ttt cca cag ggc ctg 102
 Gly Gly Arg Ser Arg Val Asp Gln Glu Glu Arg Phe Pro Gln Gly Leu
 10 15 20 25
 tgg aca ggg gtg gct atg aga tcc tgc ccc gaa gag cag tac tgg gat 150
 Trp Thr Gly Val Ala Met Arg Ser Cys Pro Glu Glu Gln Tyr Trp Asp
 30 35 40
 cct ctg ctg ggt acc tgc atg tcc tgc aaa acc att tgc aac cat cag 198
 Pro Leu Leu Gly Thr Cys Met Ser Cys Lys Thr Ile Cys Asn His Gln
 45 50 55
 agc cag cgc acc tgt gca gcc ttc tgc agg tca ctc agc tgc cgc aag 246
 Ser Gln Arg Thr Cys Ala Ala Phe Cys Arg Ser Leu Ser Cys Arg Lys
 60 65 70
 gag caa ggc aag ttc tat gac cat ctc ctg agg gac tgc atc agc tgt 294
 Glu Gln Gly Lys Phe Tyr Asp His Leu Leu Arg Asp Cys Ile Ser Cys
 75 80 85
 gcc tcc atc tgt gga cag cac cct aag caa tgt gca tac ttc tgt gag 342
 Ala Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala Tyr Phe Cys Glu
 90 95 100 105
 aac aag ctc agg agc cca gtg aac ctt cca cca gag ctc agg aga cag 390
 Asn Lys Leu Arg Ser Pro Val Asn Leu Pro Pro Glu Leu Arg Arg Gln
 110 115 120
 cgg agt gga gaa gtt gaa aac aat tca gac aac tcg gga agg tac caa 438
 Arg Ser Gly Glu Val Glu Asn Asn Ser Asp Asn Ser Gly Arg Tyr Gln
 125 130 135

A-570B.ST25.txt

gga ctg gag cac aga ggc tca gaa gca agt cca gct ctc ccg ggg ctg 486
 Gly Leu Glu His Arg Gly Ser Glu Ala Ser Pro Ala Leu Pro Gly Leu
 140 145 150
 aag ctg agt gca gat cag gtg gcc ctg gtc tac agc acg ctg ggg ctc 534
 Lys Leu Ser Ala Asp Gln Val Ala Leu Val Tyr Ser Thr Leu Gly Leu
 155 160 165
 tgc ctg tgt gcc gtc ctc tgc tgc ttc ctg gtg gcg gtg gcc tgc ttc 582
 Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val Ala Val Ala Cys Phe
 170 175 180 185
 ctc aag atg agg ggg gat ccc tgc tcc tgc cag ccc cgc tca agg ccc 630
 Leu Lys Met Arg Gly Asp Pro Cys Ser Cys Gln Pro Arg Ser Arg Pro
 190 195 200
 cgt caa agt ccg gcc aag tct tcc cag gat cac gcg atg gaa gcc ggc 678
 Arg Gln Ser Pro Ala Lys Ser Ser Gln Asp His Ala Met Glu Ala Gly
 205 210 215
 agc cct gtg agc aca tcc ccc gag cca gtg gag acc tgc agc ttc tgc 726
 Ser Pro Val Ser Thr Ser Pro Glu Pro Val Glu Thr Cys Ser Phe Cys
 220 225 230
 ttc cct gag tgc agg gcg ccc acg cag gag agc gca gtc acg cct ggg 774
 Phe Pro Glu Cys Arg Ala Pro Thr Gln Glu Ser Ala Val Thr Pro Gly
 235 240 245
 acc ccc gac ccc act tgt gct gga agg tgg ggg tgc cac acc agg acc 822
 Thr Pro Asp Pro Thr Cys Ala Gly Arg Trp Gly Cys His Thr Arg Thr
 250 255 260 265
 aca gtc ctg cag cct tgc cca cac atc cca gac agc ggc ctt ggc att 870
 Thr Val Leu Gln Pro Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile
 270 275 280
 gtg tgt gtg cct gcc cag gag ggg ggc cca ggt gca taaatggggg 916
 Val Cys Val Pro Ala Gln Glu Gly Gly Pro Gly Ala
 285 290
 tcagggaggg aaaggaggag ggagagagat ggagaggagg ggagagagaa agagaggtgg 976
 ggagagggga gagagatatg aggagagaga gacagaggag gcagagaggg agagaaacag 1036
 aggagacaga gaggagagaga gagacagagg gagagagaga cagagaggaa gagaggcaga 1096
 gagggaaaga ggcagagaag gaaagagaca ggcagagaag gagagaggca gagagggaga 1156
 gaggcagaga gggagagagg cagagagaca gagagggaga gagggacaga gagagataga 1216
 gcaggaggtc ggggcactct gagtcccagt tcccagtga gctgtaggtc gtcacacct 1276
 aaccacacgt gcaataaagt cctcgtgcct gctgctcaca gccccgaga gcccctcctc 1336
 ctgg 1340

<210> 42
 <211> 293
 <212> PRT
 <213> Homo sapiens

<400> 42

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
 1 5 10 15

A-570B.ST25.txt

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
 20 25 30
 Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
 35 40 45
 Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
 50 55 60
 Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
 65 70 75 80
 His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
 85 90 95
 Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
 100 105 110
 Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
 115 120 125
 Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
 130 135 140
 Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
 145 150 155 160
 Ala Leu Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys
 165 170 175
 Cys Phe Leu Val Ala Val Ala Cys Phe Leu Lys Met Arg Gly Asp Pro
 180 185 190
 Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser
 195 200 205
 Ser Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro
 210 215 220
 Glu Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro
 225 230 235 240
 Thr Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Pro Thr Cys Ala
 245 250 255
 Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro Cys Pro
 260 265 270
 His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys Val Pro Ala Gln Glu
 275 280 285

Gly Gly Pro Gly Ala
290

<210> 43
<211> 291
<212> PRT
<213> Homo sapiens

<400> 43

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1 5 10 15
Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
20 25 30
Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
35 40 45
Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
50 55 60
Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65 70 75 80
His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
85 90 95
Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
100 105 110
Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
115 120 125
Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
130 135 140
Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145 150 155 160
Ala Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys Cys
165 170 175
Phe Leu Val Ala Val Ala Cys Phe Leu Lys Met Arg Gly Asp Pro Cys
180 185 190
Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser Ser
195 200 205
Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro Glu
210 215 220
Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro Thr
225 230 235 240
Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Thr Cys Ala Gly Arg
245 250 255
Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro Cys Pro His Ile
260 265 270
Pro Asp Ser Gly Leu Gly Ile Val Cys Gly Pro Ala Gln Glu Gly Gly
275 280 285
Pro Gly Ala
290

<210> 44
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 44

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
 1 5 10 15
 Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
 20 25 30

<210> 45
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 45

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
 1 5 10 15
 Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
 20 25 30

Phe Cys Arg Ser Leu
 35

<210> 46
 <211> 38
 <212> PRT
 <213> Homo sapiens

<400> 46

Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp His Leu Leu Arg Asp
 1 5 10 15
 Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala
 20 25 30

Tyr Phe Cys Glu Asn Lys
 35

<210> 47
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 47

Leu Arg Ser Pro Val Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser
 1 5 10 15
 Gly Glu Val Glu Asn Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu
 20 25 30

Glu His Arg Gly Ser Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu
 35 40 45

Ser Ala Asp Gln Val Ala Val Tyr Ser
 50 55

<210> 48
 <211> 21
 <212> PRT

<213> Homo sapiens

<400> 48

Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val Ala
 1 5 10 15

Val Ala Cys Phe Leu
 20

<210> 49

<211> 106

<212> PRT

<213> Homo sapiens

<400> 49

Lys Met Arg Gly Asp Pro Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg
 1 5 10 15

Gln Ser Pro Ala Lys Ser Ser Gln Asp His Ala Met Glu Ala Gly Ser
 20 25 30

Pro Val Ser Thr Ser Pro Glu Pro Val Glu Thr Cys Ser Phe Cys Phe
 35 40 45

Pro Glu Cys Arg Ala Pro Thr Gln Glu Ser Ala Val Thr Pro Gly Thr
 50 55 60

Pro Asp Thr Cys Ala Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val
 65 70 75 80

Leu Gln Pro Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys
 85 90 95

Gly Pro Ala Gln Glu Gly Gly Pro Gly Ala
 100 105

<210> 50

<211> 32

<212> DNA

<213> Homo sapiens

<400> 50

tctccaagct tccgatcctg agtaatgagt gg

32

<210> 51

<211> 34

<212> DNA

<213> Homo sapiens

<400> 51

tctccgctgtag accagggcca cctg

34

<210> 52

<211> 6

<212> PRT

<213> Homo sapiens

<400> 52

Gly Ala Leu Lys Leu Leu
 1 5